

PROCEEDINGS
OF THE
NEW ENGLAND ZOÖLOGICAL CLUB

TWO NEW CHINESE JAPALURAS

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It has been a general custom to consider such few Chinese Japaluras as have found their way into American museums as belonging to *J. yunnanensis*, which Anderson described from Momein or Tengyuechow (Zool. Yunnan., 1878, p. 803, pl. 76, fig. Z). When reporting upon the Zappey collection, the senior author noted that the specimens which were before him from the Tung River in western Szechuan, did not wholly agree with Anderson's figure (Mem. M. C. Z., 40, 1912, p. 134). Nor do they agree with three examples from western China, recently, by Dr. Stejneger's kindness, loaned for study from the United States National Museum. Thanks to the generosity of the authorities of the American Museum of Natural History, a large series of true *yunnanensis* has become available for comparison, collected by Messrs. Andrews and Heller on their recent Asiatic journey. These examples agree in detail with Anderson's description and with such definite features as were depicted in his figure. The American Museum Expedition collected extensively in southern and western Yunnan; and although, unfortunately, their specimens as yet bear no definite data (since, owing to Mr. Andrews' absence on his second journey to China, the key to his field-numbers is not at hand), he visited Tengyuechow itself, so there cannot be much cavil if his speci-

mens are provisionally considered topotypes. One of the new species described below was found also by Andrews and Heller on the Snow Mountains near Lichiangfu, described in chapter XII of Andrews' 'Camps and Trails in China' (D. Appleton and Co., N. Y., 1918).

The new form may be called:

Japalura flaviceps sp. nov.

Japalura yunnanensis Boulenger (*nec* Anderson), Cat. Liz. B. M., I, 1885, p. 310.

Type, an adult male, M. C. Z., no. 12,469, from among cacti along the sandy shores of the Tung River in western Szechuan; W. R. Zappey, collector, 7, February, 1908. Paratypes: four other examples, also in M. C. Z., having the same data as the type, and also three from the Snow Mountains near Lichiangfu in northern Yunnan, not far from the Szechuan frontier (A. M. N. H. coll.).

Description. — Top of head covered with rugose scales of unequal size; on the snout a median series of four distinctly enlarged almost conical scales forming a ridge, and followed by two irregular series of enlarged scales extending almost to the posterior border of the orbit; these two series are separated by four or five scales which are themselves larger than the other upper head shields; a group of distinctly enlarged shields on the occipital region. Rostral broad and low, wider and lower than the mental; canthus rostralis moderately defined and continuous with the superciliaries; nostril in a large oval shield separated from the labials by generally two but sometimes a single series of small scales, and from the rostral by a group of small scales usually three in number; upper labials nine or ten, seventh below the middle of the eye; orbit separated from upper labials by four (rarely three) rows of small keeled scales; lower labials eleven; an ill-defined series of five enlarged scales extending from the posterior border of the orbit to above the tympanic region; a few elongated, almost spinelike scales above the tympanum; nuchal crest composed of about nine or ten enlarged denticulate scales, but slightly larger than and continuous with the feebly developed dorsal crest.

A well-developed fold anterior to insertion of fore limb; a large area about the insertion of the fore limb covered with very small, keeled and slightly imbricate scales, at first sight resembling granules; scales of back and sides all imbricate, strongly keeled and varying greatly in size; the largest scales tend slightly more toward forming longitudinal series than groups transversely arranged. Scales of throat and belly subequal in size, strongly keeled, and slightly mucronate; the hind limb, being extended forward,

reaches the posterior border of the eye; scales of fore and hind limbs all strongly keeled and somewhat irregular in size.

Throat and sides of head dirty yellowish; top of head dusky brown; a brilliant yellow band along each side of the back, enclosing a series of about seven irregular dark brown rhombs with yellow centers; the yellow lateral band bordered below by a dark streak; lower sides, limbs, belly, and tail, dark yellowish brown; tail with irregular dusky cross-bars.

Dimensions.—Tip of snout to vent, 80; length of head, 27; width of head, 15; fore limb, 35; hind limb, 56 mm.

Females and younger males are less brilliantly colored. The head is more uniformly dusky, and the lateral stripes are but feebly defined, although the mid-dorsal series of rhombs with light centers is distinct in most cases.

This form may readily be distinguished from *yunnanensis*, in coloration especially; in lacking the strongly marked stripe from eye to the angle of the mouth; in the different dorsal scutellation; and in having the head not distinctly flat, or even concave, and covered with much more homogeneous small scales; the scales about the nostril also are differently arranged.

This probably is the form erroneously referred to by Swinhoe (P. Z. S., 1870, p. 411) when he wrote "*Iapalura swinhoei*. . . . This comb-backed Tree-lizard was before only known from the woods of South Formosa. On my late expedition up the Yangtze I found it on the rocks among woods near Chungkingfoo." The Chinese forms, from the meagre field notes available, seem to be terrestrial types, as their habit would indicate, while those of the Riu Kiu Islands and Formosa surely have the strong appearance of being truly 'tree lizards.' *Yunnanensis* has a far more southern and more nearly tropical habitat.

The specimens which Boulenger used in drawing the description of *yunnanensis* were collected by Swinhoe in 'Szechuan,' no definite locality being mentioned. They were the only ones in the British Museum up to 1885, and are probably the same specimens which Swinhoe mentions (l. c.). Dr. Boulenger wrote me a very short time ago (18, September, 1919) that no further specimens had come to the British Museum.

Japalura splendida sp. nov.

Type, an adult male, U. S. N. M., no. 35,522, from the Gorge of the Yangtze River near Ichang, Hupeh, central China; E. Blackwelder, collector. *Paratypes*: U. S. N. M., 35,523, half-grown, from Taningsien, eastern end of the Chihshiting Pass, eastern Szechuan, near the Hupeh frontier, and U. S. N. M., no. 35,524, from Liangho in the Chinling Mountains of Shensi.

Description. — Top of head covered with medium-sized, subequal, rugose, juxtaposed scales; on the snout a median series of three or four slightly enlarged subconical scales forming a faintly indicated ridge, flanked on each side by a considerably enlarged anterior canthal scale; no other head scales conspicuously enlarged, except one or two on each side of the post-occipital areas; rostral twice as wide as high, wider but lower than the mental; canthus rostralis sharply defined and continuous with the superciliaries; nostril in a large suboval shield, separated from the rostral by but one small scale, in contact with the first labial, and separated from the second labial by a single small shield; upper labials eight; sixth below the center of the eye; orbit separated from upper labials by three rows of shields, the middle row much enlarged; ten lower labials; a short series of about three enlarged shields above the tympanic region, and above these a few, elongated, almost spinelike scales; nuchal crest very feeble, composed of about eight or nine slightly enlarged, denticulate scales, continuous with the still more feebly developed dorsal crest. A faintly indicated fold anterior to the insertion of the fore limb; above the insertion of the fore limb a large area is covered with tiny almost granular scales; back and sides covered with imbricate, strongly keeled scales, which vary somewhat in size; somewhat enlarged scales abundantly scattered over the whole back and sides, and generally tending to form longitudinal series (more so than in the preceding species), also the largest scales far less conspicuously enlarged; scales of throat and belly small, about equal in size, strongly keeled; the hind limb, being extended forward, reaches the anterior border of the orbit or a little beyond; scales of fore and hind limbs strongly keeled and unequal in size.

Head dark brown, conspicuously marked with yellow spots and streaks above and on the sides; a yellow band extending from behind the nostril, beneath the eye and above the labials, to below the tympanic area; rostral and three anterior labials yellow, the others dark; back uniform dark brown with a broad conspicuous light stripe on each side, and a broad dark zone below this; belly and tail dusky, the latter with irregular darker bands; throat conspicuously streaked, longitudinally, with brown on a yellow ground.

Dimensions. — Tip of snout to vent, 85; length of head, 30; width of head, 21; fore limb, 44; hind limb, 65; tail, 210 mm.

This species ranges distinctly east of the one previously described.

This form approaches *yunnanensis* in having more uniform scales on the top of the head than does *flaviceps*. It differs, however, from both species in the much more homogeneous squamation of the back and sides, and in the different arrangement of the scales about the nostril and between the eye and supralabials, as well as in having a wholly different type of coloration.

In the large series of *yunnanensis* examined, the dark stripe from the eye to the angle of the mouth is a very conspicuous feature; also the spines of the nuchal crest are conspicuously elongated; in contradistinction to the two previously described species the head is flat, or somewhat concave, and is covered with rather homogeneous flat scales, more irregularly striate than strongly rugose as in the other two forms; also, as will be recalled, the coloration of *yunnanensis*, in the adults especially, consists of conspicuous cross-bands, as figured by Anderson.